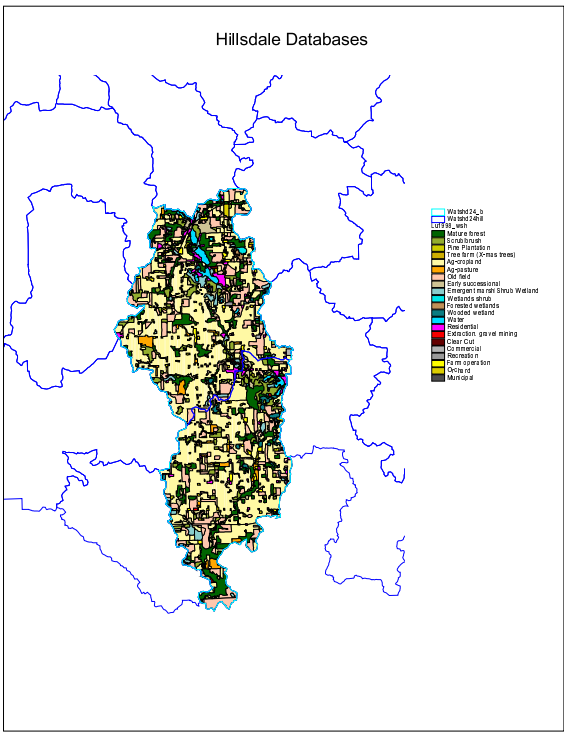
Partnerships for Effective Long-term Ecosystem Conservation



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Michigan Natural Features Inventory
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Michigan Natural Features Inventory

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Introduction

Several high priority ecosystems with high biodiversity value are located in southern Michigan, namely the prairie fen-oak upland ecosystem, oak-pine barrens ecosystem, and southern riverine ecosystem. Prairie fen is a globally rare wetland community home to numerous rare plants, animals, and insects such as the federally endangered Mitchell's satyr butterfly. Significant areas for the prairie fen-oak upland ecosystem are primarily limited to the interlobate region of the southern Lower Peninsula. The oak-pine barrens ecosystem consists of three globally rare natural communities; oak-pine barrens, dry sand prairie, and coastal plain marsh. Ten rare plants and 11 rare animals are associated with oak-pine barrens and dry sand prairies, and the coastal plain marsh community harbors 45 rare plants. The southern riverine ecosystem consists of rivers and streams and adjacent southern floodplain forests. Michigan's streams and rivers, particularly those in southern Michigan, harbor numerous rare mussel and fish species including the federally endangered clubshell. Southern floodplain forest, a globally rare natural community, harbors over thirty rare plant species and numerous rare animals including the federally endangered Indiana bat and northern copperbelly water snake.

One of the biggest challenges facing the conservation of these threatened ecosystems is the large amount of small private parcels that dominates the southern Michigan landscape. 95% of the land in southern Michigan is privately owned, and there is tremendous pressure on this area from spreading residential, commercial, and industrial developments, landfills, intensive agricultural operations (such as large hog confinement operations), and the rapid spread of zebra mussels into rivers and lakes. Additionally, only a small percentage of these high priority ecosystems is permanently protected or managed for biodiversity.

Opportunities and constraints:

Numerous local conservation organizations, as well as several state and federal agencies, work in southern Michigan to conserve and protect natural resources on private land. Our past experience with landowner contact and education has convinced us that an established, local presence is essential for success in stimulating conservation on private lands. Local organizations are valuable partners because they have an established relationship with the community, a good understanding of local politics, landscapes, and culture, and they are readily accessible. Our centralized Lansing based program cannot provide this local presence.

The majority of these organizations, however, lack expertise in conservation planning, landscape ecology, and rare plant, animal, and natural community identification. Many also lack the resources and/or expertise to implement education and stewardship programs. In addition, although many of these organizations have similar goals, they tend to work independently of each other minimizing the potential effectiveness of collaboration.

Action

To address this need, MNFI identified local conservation groups in southern Michigan interested in the conservation of their region's biodiversity and high priority ecosystems. The three organizations which expressed an interest in forming a partnership with MNFI were: 1) the Southwest Michigan Land Conservancy, 2) the Land Conservancy of Western Michigan, and 3) the St. Joseph River Watershed Initiative. Our goal was to provide these organizations with natural features information, skills, and conservation tools so that they could become more effective leaders, and have a long-term impact on local policy and the development of a strong local conservation ethic.

To help these organizations become more effective in the conservation of their region's biodiversity, MNFI provided each organization with 1) biological and ecological information to determine conservation priorities in their region of Michigan, 2) training to develop and implement a proactive landowner contact and education program, and 3) informal training in conservation planning. We also identified the educational material needs of each organization, developed a plan to create these materials, and initiated an ecosystem-based conservation project for the west branch of the St. Joseph River.

The following sections summarize the major activities and tasks accomplished during the course of the project. Sections are organized by the partner organization, and activities are subdivided into five headings: 1) partnership, 2) tools, 3) outreach, 4) educational materials, and 5) related/future projects. The report concludes with a discussion section and includes several appendices.